

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

John C. S. Koo

Serial No.: 10/613,741

Filed: July 3, 2003

For: Shoe Having a Contoured Bottom  
with Small Particles Bonded to the  
Lowest Extending Portions Thereof

Group Art Unit: 3728

Examiner: Jila M. Mohandes

Conf. No.: 5633

**APPEAL BRIEF**  
**ON APPEAL TO THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Mail Stop Appeal Brief - Patent  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Appellant in the above-captioned patent application appeals the final rejection of claims 1-36 set forth in the Office Action mailed July 31, 2006 (the "Final Rejection"), a Notice of Appeal and request for one-month extension of time having been timely filed on November 28, 2006.

**I. REAL PARTY IN INTEREST**

The real party in interest in this application is Dynasty Footwear, Ltd., pursuant to an assignment recorded on July 3, 2003, at reel 014270, frame 0109.

## **II. RELATED APPEALS, INTERFERENCES AND PROCEEDINGS**

Appellant is not aware of any related appeals, interferences or judicial proceedings.

## **III. STATUS OF CLAIMS**

Claims 1-36 have been finally rejected and are the subject matter of this appeal. In accordance with 37 C.F.R. § 1.192(c)(9), a copy of the claims involved in this appeal is included in the Claims Appendix attached hereto.

## **IV. STATUS OF THE AMENDMENTS**

An Amendment After Final Rejection was filed on November 28, 2006, subsequent to the Final Rejection. In the Amendment, the only requested change was a proposed amendment to Figure 4 in order to overcome an objection to that drawing in the Final Rejection. In an Advisory Action mailed December 7, 2006, the Examiner approved entry of the proposed drawing amendment.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention concerns a shoe having a plurality of indentations on its bottom surface, with lower extending portions between the indentations. An example is set forth in original Figure 4, which shows the cross-section of a portion of a shoe's insole and outsole, having indentations 52 and lower extending portions 54 between them. Also see, e.g., page 12 line 24 through page 13 line 2 of the Specification.

Generally speaking, small particles are bonded differentially to different areas of the bottom surface, based on whether an area is a lower extending portion or an

indentation, with an emphasis toward coating lower extending portions. See, e.g., revised Figure 4. In one representative embodiment, the small particles are flocking fibers. See, e.g., page 8 line 16 through page 14 line 4 of the Specification.

A technique for achieving this configuration is described, e.g., at page 12 line 24 through page 13 line 12 of the Specification, with reference to Figure 4 thereof. In one representative embodiment, at least some of the lower extending portions have a plurality of small particles bonded to them, but each of the plurality of indentations is predominantly uncoated with such small particles. *Id.* In another, only the lower extending portions of the shoe's bottom surface are coated. See, e.g., page 12 lines 20-23.

One advantage of these configurations is that if and when the flocking or other particles eventually wear away, the entire bottom surface of the shoe often will have a more uniform appearance than if the entire bottom surface of the shoe were coated. The reason is that it ordinarily would be very difficult or impossible for the particles adhering to the surface within the indentations to wear away at the same rate as the particles on the lower extending portions. See, e.g., page 13 lines 6-12 and 25-28 of the Specification.

Thus, independent claim 1 is directed to a shoe in which the bottom surface, which is adjacent to the ground in normal use, has a plurality of indentations, with lower extending portions between such indentations. An example is set forth in Figure 4, which shows the cross-section of a portion of a shoe's insole and outsole, having indentations 52 and lower extending portions 54 between them. Also see, e.g., page 12 line 24 through page 13 line 12 of the Specification. A sole forms at least a portion of

the bottom surface, and an upper portion extends above the sole. See, e.g., page 9 lines 2-4. A plurality of small particles is bonded to at least some of the lower extending portions (e.g., portions 54), but each of the plurality of indentations (e.g., indentations 52) is predominantly uncoated with such small particles. See, e.g., page 12 line 24 through page 13 line 12 of the Specification and revised Figure 4.

Independent claim 30 is directed to a shoe in which a bottom surface that is adjacent to the ground in normal use has a plurality of indentations, with lower extending portions between the indentations. See, e.g., Figure 4 and page 12 line 24 through page 13 line 12 of the Specification. A sole forms at least a portion of the bottom surface, and an upper portion extends above the sole. See, e.g., page 9 lines 2-4 of the Specification. A plurality of small particles are bonded differentially to different areas of the bottom surface, with each of a plurality of the lower extending portions being coated more than each of the plurality of indentations. See, e.g., page 12 line 24 through page 13 line 12 of the Specification.

## **VI. GROUNDS OF REJECTION**

Claims 1-3, 5, 11-18, 19, 20 and 24-36 stand rejected under 35 USC § 103(a) over U.S. Patent 4,356,643 (Kester) in view of U.S. Patent 4,658,514 (Shin); claim 4 stands rejected under § 103(a) over Kester in view of Shin and U.S. Patent 6,782,642 (Knoche); claim 6 stands rejected under § 103(a) over Kester in view of Shin and U.S. Patent 2,663,097 (Giese); claims 7, 8 and 10 stand rejected under § 103(a) over Kester in view of Shin and certain information of which the Examiner takes Official Notice; claim 9 stands rejected under § 103(a) over Kester in view of Shin and U.S. Patent

4,779,360 (Bible); and claims 21-23 stand rejected under § 103(a) over Kester in view of Shin and U.S. Patent 5,276,981 (Schaffer).

## **VII. ARGUMENT**

### **Authority Pertaining to Issues on Appeal**

#### **Obviousness Rejections Under 35 USC § 103**

The requirements for establishing a *prima facie* case of a § 103 rejection have been stated as follows.

“a proper analysis under § 103 requires, *inter alia*, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success. [citing In re Dow Chemical Co., 837 F.2d 469, 473, 5 U.S.P.Q.2D 1529, 1531 (Fed. Cir. 1988).] Both the suggestion and the reasonable expectation of success must be found in the prior art, not in the applicant’s disclosure.”

In re Vaeck, 947 F.2d 488, 493 (Fed. Cir. 1991).

Thus, MPEP § 2142 requires that in order to establish a *prima facie* case of obviousness, the Examiner must cite prior art references that teach or suggest *all* of the claim limitations and, if more than one such reference is required to disclose all such limitations, there must be some suggestion or motivation, either in the prior art references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the reference teachings.

As to motivation to combine, MPEP § 2143.01 provides:

A statement that modifications of the prior art to meet the claimed invention would have been “well within the ordinary skill of the art at the time the claimed invention was made” because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness

without some objective reason to combine the teachings of the references. Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000) (Court reversed obviousness rejection involving technologically simple concept because there was no finding as to the principle or specific understanding within the knowledge of a skilled artisan that would have motivated the skilled artisan to make the claimed invention); Al-Site Corp. v. VSI Int'l Inc., 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide the suggestion to combine references.).

### **Rejection under 35 USC § 103(a) over Kester in view of Shin**

#### Claims 1-3, 5, 9, 10, 12-20 and 24-29

Independent claim 1 is directed to a shoe having a bottom surface that is adjacent to the ground in normal use and that includes a plurality of indentations and lower extending portions between such indentations. A sole forms at least a portion of the bottom surface, and an upper portion extends above the sole. A plurality of small particles is bonded to at least some of the lower extending portions, but each of the plurality of indentations is predominantly uncoated with such small particles.

The foregoing combination of features is not disclosed or suggested by the applied art. For example, no permissible combination of Kester and Shin would have disclosed or suggested a configuration in which small particles are bonded to lower extending portions of the bottom surface of a shoe, but indentations separated by such lower extending portions are predominantly uncoated.

In this regard, Kester describes and illustrates a shoe having a friction pad 15 that covers the entire bottom surface of the front part of a shoe and another friction pad 15 that covers the entire bottom surface of the shoe's heel. The friction pads 15 are

comprised of interlaced, relatively stiff strands 17 of individual nylon fibers 18 woven through a backing liner 16, and the liner 16 is secured to the underside of the shoe's sole. See, e.g., Kester's Abstract, Figures 4 and 5, column 1 lines 37-40 and column 2 lines 6-19.

The Examiner has taken the position that: the presently recited "particles" read on Kester's individual fibers 18, the recited "lower extending portions" read on Kester's projections (or cleats) 14, and the recited "indentations" read on the spaces between such projections 14. In addition, the Examiner acknowledges that Kester does not disclose that each of a plurality of indentations is predominately uncoated with small particles.

In order to make up for this deficiency, the Examiner cites Shin. Shin describes and illustrates a running shoe having a particular sole structure. See, e.g., Shin's Abstract. More specifically, Shin's design uses a plurality of parallel slots 50 cut into the ball of the outsole to increase flexibility at that portion of the sole's structure. See, e.g., Shin's Abstract and column 3 lines 65-68.

Shin's bar treads 76, which are the portions of the Shin's sole between adjacent slots 50, are provided with ridges 78. Shin states that the purposes of such ridges 78 are to maximize traction and to provide a cushioning effect. See, e.g., column 3 line 68 through column 4 line 6 of Shin's disclosure.

The Examiner's argument for combining Shin with Kester in order to achieve the present invention is somewhat difficult to follow, but appears to rely primarily on the fact that, unlike Shin's bar treads 76, the surfaces of Shin's slots 50 are not provided with ridges 78. The Examiner concludes that the reason for omitting ridges 78 on the

surface of Shin's slots 50 is that the surfaces of slots 50 do not contact the ground and, therefore, the purported benefits of the ridges 78 would not be achieved even if they were to be used within slots 50.

There does not appear to be any support within Shin itself for this conclusion; an at least equally plausible reason for the omission is that the slots 50 are much narrower than the bar treads 76 and simply might not be wide enough to accommodate the ridges 78. In any event, and irrespective of the reason that slots 50 are not provided with ridges 78, there would have been no motivation to combine Shin with Kester in the manner argued by the Examiner.

Specifically, the Examiner seems to argue that Shin's inclusion of ridges 78 on its bar treads 76 but not on the surfaces of slots 50 somehow would have motivated one of ordinary skill in the art to modify Kester's design by applying friction pads 15 only to Kester's cleats 14, and not to the indentations between such cleats 14. It appears that the main justifications presented for this argument are: (1) that, similar to Shin, providing fibers within Kester's indentations would be pointless because the purported benefits of any such fibers could not be achieved and (2) that omitting the fibers from Kester's indentations would result in a shoe that has greater flexibility.

As to the first justification asserted by the Examiner, it is quite plain from even a brief review of Shin's drawings that it simply is not the case that the purported benefits of Kester's fibers are not obtained with respect to those portions of the friction pad 15 that cover the indentations. Such fibers extend almost to the same level as the fibers covering Kester's cleats 14. As a result, they almost certainly would contact the ground and thereby provide a similar non-slip effect.



As to the second asserted justification, there is absolutely nothing in Kester or Shin to indicate that flexibility would be significantly improved by omitting the friction pad 15 from the indentations between Kester's cleats 14. To the contrary, it appears that both the backing liner 16 and the strands 17 attached to it are made of fabric and, therefore, are likely to be very flexible and compressible.

Also, there is absolutely nothing in Kester or Shin to indicate that additional flexibility is even a particularly desirable quality in the types of footwear contemplated by Kester. Unlike Shin's running shoes, in which flexibility is very important, Kester appears to be primarily interested in footwear (e.g., work shoes and the like) that can be used on slippery surfaces, such as ice, water, oil or grease. See, e.g., column 1 lines 6-10 of Kester.

Still further, in Kester's shoe, friction pads 15 are affixed to the underside of the shoe's sole and heel. See, e.g., column 2 lines 6-7 of Kester. Covering only the cleats 14 with such friction pads 15, as suggested by the Examiner, would require a significantly larger number of differently shaped friction pads 15, and probably would significantly increase the cost of manufacturing each shoe. As noted above, it does not appear that there would have been any significant offsetting benefit to compensate for these substantial additional costs. Accordingly, there would have been no motivation whatsoever to modify Kester's design as suggested by the Examiner.

Finally, it is unlikely that Shin provides any teaching at all regarding Kester's configuration. As noted above, one objective of Shin's ridges 78 is to provide additional traction. However, it appears that their main purpose is to provide a cushioning effect. See, e.g., column 4 lines 2-6 of Shin.

For example, column 4 lines 7-10 of Shin notes that bars 80 (which otherwise are similar to bar treads 76) do not include ridges 78, as the heel and toe sections 40 and 42 of Shin's outsole are provided with a cushioned midsole. Clearly, if the main purpose of ridges 78 was to provide increased traction, the heel and toe sections also would benefit from ridges 78.

It therefore seems apparent that the main purpose of Shin's ridges 78 is to provide cushioning. In contrast, the only stated purpose of Kester's fibers is to reduce slipping.

As a result of this difference, as well as the fundamental differences in the structures of Kester's and Shin's shoes, the mere fact that Shin's ridges 78 appear in one place and not in another would not have suggested anything to one of ordinary skill in the art regarding any potential modification of Kester's shoe. This is particularly apparent when one considers that there is absolutely no teaching or even explanation whatsoever as to the reason that Shin's ridges 78 are not provided on the slots 50, and no teaching whatsoever regarding the desirability of modifying the configuration of Kester's significantly different type of shoe.

Thus, contrary to the holding of In re Vaeck, *supra*, no permissible combination of Kester and Shin would have suggested to those of ordinary skill in the art that they should make the presently claimed shoe. In addition, the applied art does not disclose or suggest at least the feature that small particles are bonded to lower extending portions of the bottom surface of a shoe, but indentations separated by such lower extending portions are predominantly uncoated. Accordingly, any assertion of

obviousness would be contrary to MPEP § 2142, which requires the applied art to teach or suggest *all* of the claim limitations.

For at least these reasons, independent claim 1, together with its dependent claims 2, 3, 5, 9, 10, 12-20 and 24-29, is believed to be allowable over the applied art.

Claims 30, 31, 33, 34 and 36

Independent claim 30 is directed to a shoe in which a bottom surface that is adjacent to the ground in normal use has a plurality of indentations, with lower extending portions between the indentations. A sole forms at least a portion of the bottom surface, and an upper portion extends above the sole. A plurality of small particles are bonded differentially to different areas of the bottom surface, with each of a plurality of the lower extending portions being coated more than each of the plurality of indentations.

The foregoing combination of features is not disclosed or suggested by the applied art. For example, no permissible combination of Kester and Shin would have disclosed or suggested the recited feature that a plurality of small particles are bonded differentially to different areas of the bottom surface of a shoe, with each of a plurality of lower extending portions being coated more than each of a plurality of indentations that are separated by the lower extending portions.

In this regard, Kester describes and illustrates a shoe having a friction pad 15 that covers the entire bottom surface of the front part of a shoe and another friction pad 15 that covers the entire bottom surface of the shoe's heel. The friction pads 15 are comprised of interlaced, relatively stiff strands 17 of individual nylon fibers 18 woven through a backing liner 16, and the liner 16 is secured to the underside of the shoe's

sole. See, e.g., Kester's Abstract, Figures 4 and 5, column 1 lines 37-40 and column 2 lines 6-19.

The Examiner has taken the position that: the presently recited "particles" read on Kester's individual fibers 18, the recited "lower extending portions" read on Kester's projections (or cleats) 14, and the recited "indentations" read on the spaces between such projections 14. In addition, the Examiner acknowledges that Kester does not disclose that a plurality of small particles are bonded differentially to different areas of the bottom surface of a shoe, with each of a plurality of lower extending portions being coated more than each of a plurality of indentations that are separated by the lower extending portions.

In order to make up for this deficiency, the Examiner cites Shin. Shin describes and illustrates a running shoe having a particular sole structure. See, e.g., Shin's Abstract. More specifically, Shin's design uses a plurality of parallel slots 50 cut into the ball of the outsole to increase flexibility at that portion of the sole's structure. See, e.g., Shin's Abstract and column 3 lines 65-68.

Shin's bar treads 76, which are the portions of the Shin's sole between adjacent slots 50, are provided with ridges 78. Shin states that the purposes of such ridges 78 are to maximize traction and to provide a cushioning effect. See, e.g., column 3 line 68 through column 4 line 6 of Shin's disclosure.

The Examiner's argument for combining Shin with Kester in order to achieve the present invention is somewhat difficult to follow, but appears to rely primarily on the fact that, unlike Shin's bar treads 76, the surfaces of Shin's slots 50 are not provided with ridges 78. The Examiner concludes that the reason for omitting ridges 78 on the

surface of Shin's slots 50 is that the surfaces of slots 50 do not contact the ground and, therefore, the purported benefits of the ridges 78 would not be achieved even if they were to be used within slots 50.

There does not appear to be any support within Shin itself for this conclusion; an at least equally plausible reason for the omission is that the slots 50 are much narrower than the bar treads 76 and simply might not be wide enough to accommodate the ridges 78. In any event, and irrespective of the reason that slots 50 are not provided with ridges 78, there would have been no motivation to combine Shin with Kester in the manner argued by the Examiner.

Specifically, the Examiner seems to argue that Shin's inclusion of ridges 78 on its bar treads 76 but not on the surfaces of slots 50 somehow would have motivated one of ordinary skill in the art to modify Kester's design by applying friction pads 15 only to Kester's cleats 14, and not to the indentations between such cleats 14. It appears that the main justifications presented for this argument are: (1) that, similar to Shin, providing fibers within Kester's indentations would be pointless because the purported benefits of any such fibers could not be achieved and (2) that omitting the fibers from Kester's indentations would result in a shoe that has greater flexibility.

As to the first justification asserted by the Examiner, it is quite plain from even a brief review of Shin's drawings that it simply is not the case that the purported benefits of Kester's fibers are not obtained with respect to those portions of the friction pad 15 that cover the indentations. Such fibers extend almost to the same level as the fibers covering Kester's cleats 14. As a result, they almost certainly would contact the ground and thereby provide a similar non-slip effect.

As to the second asserted justification, there is absolutely nothing in Kester or Shin to indicate that flexibility would be significantly improved by omitting the friction pad 15 from the indentations between Kester's cleats 14. To the contrary, it appears that both the backing liner 16 and the strands 17 attached to it are made of fabric and, therefore, are likely to be very flexible and compressible.

Also, there is absolutely nothing in Kester or Shin to indicate that additional flexibility is even a particularly desirable quality in the types of footwear contemplated by Kester. Unlike Shin's running shoes, in which flexibility is very important, Kester appears to be primarily interested in footwear (e.g., work shoes and the like) that can be used on slippery surfaces, such as ice, water, oil or grease. See, e.g., column 1 lines 6-10 of Kester.

Still further, in Kester's shoe, friction pads 15 are affixed to the underside of the shoe's sole and heel. See, e.g., column 2 lines 6-7 of Kester. Covering only the cleats 14 with such friction pads 15, as suggested by the Examiner, would require a significantly larger number of differently shaped friction pads 15, and probably would significantly increase the cost of manufacturing each shoe. As noted above, it does not appear that there would have been any significant offsetting benefit to compensate for these substantial additional costs. Accordingly, there would have been no motivation whatsoever to modify Kester's design as suggested by the Examiner.

Finally, it is unlikely that Shin provides any teaching at all regarding Kester's configuration. As noted above, one objective of Shin's ridges 78 is to provide additional traction. However, it appears that their main purpose is to provide a cushioning effect. See, e.g., column 4 lines 2-6 of Shin.

For example, column 4 lines 7-10 of Shin notes that bars 80 (which otherwise are similar to bar treads 76) do not include ridges 78, as the heel and toe sections 40 and 42 of Shin's outsole are provided with a cushioned midsole. Clearly, if the main purpose of ridges 78 was to provide increased traction, the heel and toe sections also would benefit from ridges 78.

It therefore seems apparent that the main purpose of Shin's ridges 78 is to provide cushioning. In contrast, the only stated purpose of Kester's fibers is to reduce slipping.

As a result of this difference, as well as the fundamental differences in the structures of Kester's and Shin's shoes, the mere fact that Shin's ridges 78 appear in one place and not in another would not have suggested anything to one of ordinary skill in the art regarding any potential modification of Kester's shoe. This is particularly apparent when one considers that there is absolutely no teaching or even explanation whatsoever as to the reason that Shin's ridges 78 are not provided on the slots 50, and no teaching whatsoever regarding the desirability of modifying the configuration of Kester's significantly different type of shoe.

Thus, contrary to the holding of In re Vaeck, *supra*, no permissible combination of Kester and Shin would have suggested to those of ordinary skill in the art that they should make the presently claimed shoe. In addition, the applied art does not disclose or suggest at least the feature that a plurality of small particles are bonded differentially to different areas of the bottom surface of a shoe, with each of a plurality of lower extending portions being coated more than each of a plurality of indentations that are separated by the lower extending portions. Accordingly, any assertion of obviousness

would be contrary to MPEP § 2142, which requires the applied art to teach or suggest *all* of the claim limitations.

For at least these reasons, independent claim 30, together with its dependent claims 31, 33, 34 and 36, is believed to be allowable over the applied art.

#### Claim 11

Claim 11 depends from independent claim 1 (discussed above) and recites the further limitation that the small particles have been bonded directly onto the at least some of the lower extending portions. This additional feature of the invention is not disclosed or suggested by the applied art.

The Examiner asserts that Figures 2 and 3 of Kester show this feature the invention. However, those drawings, and Figure 3 in particular, as well as the other portions of Kester discussed above in connection with claim 1, clearly show and describe that Kester's fibers are looped through a backing liner 16. That backing liner 16 is then attached to the underside of the shoe's sole. See, e.g., column 2 lines 6-19 of Kester.

For these additional reasons, claim 11 is believed to be allowable over the applied art.

#### Claim 32

Claim 32 depends from independent claim 30 (discussed above) and recites the further limitation that the small particles are bonded to the different areas of the bottom surface by embedding the small particles directly into said different areas using at least one of heat and pressure. This additional feature of the invention is not disclosed or suggested by the applied art.



In fact, the Examiner has not pointed to anything in Kester or Shin that would have disclosed or suggested this feature of the invention. Accordingly, claim 32 is believed to be allowable over the applied art.

Claim 35

Claim 35 ultimately depends from independent claim 30 (discussed above) and recites the further limitations that the small particles comprise a fabric material and the fabric particles have been applied using a flocking technique. This additional feature of the invention is not disclosed or suggested by the applied art.

In fact, the Examiner has not pointed to anything in Kester or Shin that would have disclosed or suggested this feature of the invention. Accordingly, claim 35 is believed to be allowable over the applied art.

**Rejection under § 103(a) over Kester in view of Shin and Knoche**

Claim 4

Claim 4 depends from independent claim 1 (discussed above) and recites the further limitation that the small particles are bonded to the at least some of the lower extending portions by embedding the small particles directly into the bottom surface using at least one of heat and pressure. This additional feature of the invention is not disclosed or suggested by the applied art.

The Examiner asserts that Knoche “teaches that particles attached to the bottom of a sole can be placed in a molded and pressed or embedded into the sole to help hold the particles on the sole to gain traction.” However, no specific support has been cited for this assertion. To the contrary, Knoche is only understood to discuss the embedding

of a mesh layer into a shoe's sole. It does not appear to say anything at all about directly embedding small particles into the bottom surface of a shoe using heat and/or pressure. Moreover, the Examiner has provided no explanation as to how one would have been motivated to modify Kester's shoe based on Knoche's teachings. For example, there is no indication as to how one would have been motivated to insert Kester's fibers into a mold in any way that would conform to present claim 4 and still achieve Kester's objective of having the fibers extend straight downwardly.

For these additional reasons, claim 4 is believed to be allowable over the applied art.

#### **Rejection under § 103(a) over Kester in view of Shin and Giese**

##### Claim 6

Claim 6 ultimately depends from independent claim 1 (discussed above) and recites the further limitation that the small particles comprise a fabric material and the fabric particles have been applied using a flocking technique. This additional feature of the invention is not disclosed or suggested by the applied art.

The Examiner asserts that it would have been obvious to use Giese's flocking to attach Kester's particles to the outsole of Kester's shoe "to gain traction, as taught by Giese". However, Giese does not appear to say anything at all about using its disclosed flocking technique to increase traction. Rather, Giese only appears to cite the advantages of attractiveness and wear quality. See, e.g., column 1 lines 11-26 of Giese. Accordingly, there would not appear to have been any motivation to combine the teachings of Giese with those of Kester.

For these additional reasons, claim 6 is believed to be allowable over the applied art.

**Rejection under § 103(a) over Kester in view of Shin and Information Subject to Official Notice**

Claims 7 and 8

Claims 7 and 8 depend from independent claim 1 (discussed above) and recite the further limitations that the small particles comprise, respectively, at least one of natural and synthetic leather and at least one of natural and synthetic rubber. These additional features of the invention are not disclosed or suggested by the applied art.

The Examiner takes official notice, "that it is well known within the art of anti-slip material to use natural or synthetic leather [or] natural or synthetic rubber ... to prevent slipping of one surface on another," and therefore concludes that, "it would have been obvious to one of ordinary skill in the art at the time the invention was made, to make the particles of the references as applied to claim 1 out of natural or synthetic leather [or] natural or synthetic rubber... as these materials are well known and used in the art for aiding in slip prevention."

Appellant disagrees with the premise of which the Examiner has taken official notice. Moreover, Kester discloses a specific type of friction pad in which stiff strands 17 of individual nylon fibers 18 woven through a backing liner 16. The Examiner has not indicated how, as a practical matter, natural or synthetic leather or natural or synthetic rubber could have been substituted for Kester's fibers, and certainly has not pointed to anything in the prior art that would have motivated such a substitution.

For these additional reasons, claim 7 is believed to be allowable over the applied art.

**Rejection under § 103(a) over Kester in view of Shin and Schaffer**

Claim 21

Claim 21 depends from independent claim 1 (discussed above) and recites the further limitation that the small particles are bonded using a temporary adhesive that allows the particles to wear off during normal outdoor use. This additional feature of the invention is not disclosed or suggested by the applied art.

The Examiner asserts that Schaffer, “teaches that the material for particles attached to the bottom of shoe soles to aid in gaining traction can be modified to wear over given time frames, including weeks,” citing col. 2, lines 3-21 of Schaffer. In fact, the cited portion of Schaffer actually describes the use of particles for creating a material for use on a shoe’s sole that will be more wear-resistant. Moreover, even the Examiner does not assert any motivation for using a temporary adhesive for attaching Kester’s fibers. To the contrary, use of a temporary adhesive would have defeated the goal that Kester was trying to achieve, i.e., resistance to slipping. Accordingly, there would have been absolutely no motivation to modify Kester’s shoe as asserted by the Examiner.

For these additional reasons, claim 21 is believed to be allowable over the applied art.

Claim 22

Claim 22 depends from independent claim 21 (discussed above) and recites the further limitation that the temporary adhesive allows the particles to wear off within no more than 3 days when worn outdoors in an urban environment on a full-time basis. This additional feature of the invention is not disclosed or suggested by the applied art.

Contrary to the Examiner's assertion, nothing in col. 2, lines 3-21 of Schaffer even remotely suggests the use of a temporary adhesive that would allow on the particles to wear off within the recited timeframe.

For these additional reasons, claim 22 is believed to be allowable over the applied art.

Claim 23

Claim 23 depends from independent claim 22 (discussed above) and recites the further limitation that the temporary adhesive allows the particles to wear off within no more than 3 weeks when worn outdoors in an urban environment on a full-time basis. This additional feature of the invention is not disclosed or suggested by the applied art.

Contrary to the Examiner's assertion, nothing in col. 2, lines 3-21 of Schaffer even remotely suggests the use of a temporary adhesive that would allow on the particles to wear off within the recited timeframe.

For these additional reasons, claim 23 is believed to be allowable over the applied art.

**VIII. CONCLUDING REMARKS**

As Appellant has shown above, for a number of reasons, nothing in the cited references discloses, teaches, or suggests the invention recited by the claims on appeal. Appellant therefore respectfully submits that the claimed invention is patentably distinct over the applied art.

In view of the foregoing remarks, Appellant respectfully requests that the rejection of claims 1-36 be reversed and a Notice of Allowance issued.

Respectfully submitted,

**JOSEPH G. SWAN, A PROFESSIONAL CORP.**

Dated: January 24, 2007

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**CLAIMS APPENDIX**

Claims on Appeal

1. A shoe comprising:
  - (a) a bottom surface that is adjacent to the ground in normal use and that has a plurality of indentations, with lower extending portions between the indentations;
  - (b) a sole that forms at least a portion of the bottom surface;
  - (c) an upper portion extending above the sole; and
  - (d) a plurality of small particles bonded to at least some of the lower extending portions, but wherein each of the plurality of indentations is predominantly uncoated with said small particles.
2. A shoe according to claim 1, wherein at least 1,000 small particles are bonded to the at least some of the lower extending portions.
3. A shoe according to claim 1, wherein the small particles are bonded to the at least some of the lower extending portions using adhesive material.
4. A shoe according to claim 1, wherein the small particles are bonded to the at least some of the lower extending portions by embedding the small particles directly into said bottom surface using at least one of heat and pressure.

5. A shoe according to claim 1, wherein the small particles comprise a fabric material.

6. A shoe according to claim 5, wherein the fabric particles have been applied using a flocking technique.

7. A shoe according to claim 1, wherein the small particles comprise at least one of natural and synthetic leather.

8. A shoe according to claim 1, wherein the small particles comprise at least one of natural and synthetic rubber.

9. A shoe according to claim 1, wherein the small particles comprise metal.

10. A shoe according to claim 1, wherein the small particles comprise plastic.

11. A shoe according to claim 1, wherein the small particles have been bonded directly onto the at least some of the lower extending portions.

12. A shoe according to claim 1, wherein the sole is sufficiently durable for commercially acceptable outdoor use.



13. A shoe according to claim 1, wherein the sole includes an outsole having an ASTM-D624 tear resistance of at least 6 kilograms per centimeter.

14. A shoe according to claim 1, wherein the sole includes an outsole having an ASTM-D624 tear resistance of at least 9 kilograms per centimeter.

15. A shoe according to claim 1, wherein the sole includes an outsole having an ASTM-D624 tear resistance of at least 15 kilograms per centimeter.

16. A shoe according to claim 1, wherein the sole includes an outsole having an ASTM-D1630(NBS) abrasion resistance of at least 25%.

17. A shoe according to claim 1, wherein the sole includes an outsole having an ASTM-D1630(NBS) abrasion resistance of at least 35%.

18. A shoe according to claim 1, wherein the sole includes an outsole having an ASTM-D1630(NBS) abrasion resistance of at least 45%.

19. A shoe according to claim 1, wherein the sole includes an outsole that is comprised of at least one of leather, natural rubber and synthetic rubber.

20. A shoe according to claim 1, wherein with the small particles cover at least 50% of the portion of the bottom surface that normally comes into contact with the ground.

21. A shoe according to claim 1, wherein the small particles are bonded using a temporary adhesive that allows the particles to wear off during normal outdoor use.

22. A shoe according to claim 21, wherein the temporary adhesive allows the particles to wear off within no more than 3 days when worn outdoors in an urban environment on a full-time basis.

23. A shoe according to claim 21, wherein the temporary adhesive allows the particles to wear off within no more than 3 weeks when worn outdoors in an urban environment on a full-time basis.

24. A shoe according to claim 1, wherein the sole is sufficiently strong for commercially acceptable outdoor use.

25. A shoe according to claim 1, wherein the bottom surface has at least five of said indentations.

26. A shoe according to claim 1, wherein at least some of said indentations are very narrow.

27. A shoe according to claim 1, wherein at least one of said indentations is approximately 1-2 millimeters in width.

28. A shoe according to claim 1, wherein at least some of said indentations are closely spaced.

29. A shoe according to claim 1, wherein at least two of said indentations are separated from each other by no more than approximately 2 millimeters.

30. A shoe comprising:

- (a) a bottom surface that is adjacent to the ground in normal use and that has a plurality of indentations, with lower extending portions between the indentations;
- (b) a sole that forms at least a portion of the bottom surface;
- (c) an upper portion extending above the sole; and
- (d) a plurality of small particles bonded differentially to different areas of the bottom surface, with each of a plurality of the lower extending portions being coated more than each of the plurality of indentations.

31. A shoe according to claim 30, wherein the small particles are bonded to the different areas of the bottom surface using adhesive material.

32. A shoe according to claim 30, wherein the small particles are bonded to the different areas of the bottom surface by embedding the small particles directly into said different areas using at least one of heat and pressure.

33. A shoe according to claim 30, wherein the small particles are bonded to the different areas of the bottom surface using a backing sheet material.

34. A shoe according to claim 30, wherein the small particles comprise a fabric material.

35. A shoe according to claim 34, wherein the fabric particles have been applied using a flocking technique.

36. A shoe according to claim 30, wherein the indentations ordinarily do not contact the ground in normal use.

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## **EVIDENCE APPENDIX**

None.

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**RELATED PROCEEDINGS APPENDIX**

None.